ON Semiconductor

Final Product/Process Change Notification

Document # : FPCN20656XA
Issue Date: 16 October 2015

Title of Change:	Qualification of ON Semiconductor Vietnam (OSV) for the Assembly and Test of Trench Schottky Rectifier in TO-220 FullPack (TO-220FP)
Proposed first ship date:	23 January 2016
Contact information:	Contact your local ON Semiconductor Sales Office or <Phuong.Hoang@onsemi.com>
Samples:	Contact your local ON Semiconductor Sales Office
Additional Reliability Data:	Contact your local ON Semiconductor Sales Office or <ffxg4t@onsemi.com>
Type of notification:	This is a Final Product/Process Change Notification (FPCN) sent to customers. FPCNs are issued 90 days prior to implementation of the change. ON Semiconductor will consider this change accepted, unless an inquiry is made in writing within 30 days of delivery of this notice. To do so, contact <PCN.Support@onsemi.com>.
Change Part Identification:	Product from On Semiconductor Vietnam (OSV) will be marked with site code VN prior to date code.
Change category:	☐ Wafer Fab Change ☒ Assembly Change ☐ Test Change ☐ Other _____

Change Sub-Category(s):

☒ Manufacturing Site Change/Addition
☐ Manufacturing Process Change
☐ Material Change
☐ Product specific change
☐ Datasheet/Product Doc change
☐ Shipping/Packaging/Marking
☐ Other: _____

Sites Affected:

☐ All site(s) ☐ not applicable ☒ ON Semiconductor site(s) : ON Dong Nai Province, Vietnam ☐ External Foundry/Subcon site(s)

Description and Purpose:

This FPCN announces the planned capacity expansion of ON Semiconductor's assembly and test operations of TO-220FP for Trench Schottky Rectifier devices. The Trench Schottky Rectifiers are currently built in ON Semiconductor Seremban, Malaysia. Upon the expiration of this FPCN, ON Semiconductor Vietnam will be added as an assembly and test facility. ON Semiconductor Vietnam is a qualified site for TO220FP as announced in FPCN 20656, which at present, is running the Ultrafast Rectifier and HV MOSFET devices.
The Trench Schottky Rectifier products have been qualified to Industrial requirements. These products will continue to be Pb-free, and RoHS compliant. All products sourced from OSV will also be Halide free.

Reliability Data Summary:

QV DEVICE NAME : NTSJ40200CTG
PACKAGE : TO220FP

Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Ta= 85°C, 80% max rated V	1008 hrs	0/80
HTSL	JESD22-A103	Ta= 150°C	1008 hrs	0/80
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, delta Tj=100°C On/off = 3.5 min	8572 cyc	0/80
TC	JESD22-A104	Ta= -65°C to +150°C	1000 cyc	0/80
H3TRB	JESD22-A101	85°C, 85% RH, 18.8psig, Bias = 80% rated V or 100V	1008 hrs	0/80
AC	JESD22-A102	Ta =121°C, RH=100% 15 psig	96 hrs	0/80
PC	J-STD-020 JESD-A113	MSL 1 @260 °C		
RSH	JESD22- B106	Ta = 260C, 10 sec		0/30
SD	JSTD002	Ta = 245C, 10 sec		0/15

QV DEVICE NAME : NTSJ60100CTG
PACKAGE : TO220FP

Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Ta= 85°C, 80% max rated V	1008 hrs	0/80
HTSL	JESD22-A103	Ta= 150°C	1008 hrs	0/80
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, delta Tj=100°C On/off = 3.5 min	8572 cyc	0/80
TC	JESD22-A104	Ta= -65°C to +150°C	1000 cyc	0/80
H3TRB	JESD22-A101	85°C, 85% RH, 18.8psig, Bias = 80% rated V or 100V	1008 hrs	0/80
AC	JESD22-A102	Ta =121°C, RH=100% 15 psig	96 hrs	0/80
PC	J-STD-020 JESD-A113	MSL 1 @260 °C		
RSH	JESD22- B106	Ta = 260C, 10 sec		0/30
SD	JSTD002	Ta = 245C, 10 sec		0/15

Electrical Characteristic Summary:

There are no changes in electrical characteristics; product performance meets data sheet specifications. Characterization data is available upon request.

List of affected Standard Parts:

Part Number	Qualification Vehicle
NTSJ20100CTG	NTSJ40200CTG
NTSJ20120CTG	NTSJ40200CTG
NTSJ2080CTG	NTSJ40200CTG
NTSJ20U100CTG	NTSJ40200CTG
NTSJ30100CTG	NTSJ40200CTG
NTSJ30120CTG	NTSJ40200CTG
NTSJ3080CTG	NTSJ40200CTG
NTSJ30U100CTG	NTSJ40200CTG
NTSJ30U80CTG	NTSJ40200CTG
NTSJ40100CTG	NTSJ40200CTG
NTSJ40120CTG	NTSJ40200CTG
NTSJ60100CTG	NTSJ60100CTG